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Conference Abstract

The Walking Dead: Status Report, Data Workflow and Best Practices of the oVert Thematic Collections Network

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Abstract

In 2017 NSF funded “oVert (openVertebrate): Open Exploration of Vertebrate Diversity in 3D,” which is the first Thematic Collections Network devoted entirely to vertebrate morphological specimens. The primary goal of oVert is to generate and serve high-resolution digital three-dimensional data for internal anatomy across vertebrate diversity. oVert will CT-scan >20,000 fluid-preserved specimens representing >80% of the living genera of vertebrates, providing broad coverage for exploration and research on all major groups of vertebrates. Contrast-enhanced scans will be generated to reveal soft tissues and organs for a majority of the living vertebrate families. This collection of digital imagery and three-dimensional volumes will be open for exploration, download, and use. These new media will provide unprecedented global access to valuable morphological data of specimens in US collections.oVert is developing best practices and guidelines for high-throughput CT-scanning, including efficient workflows, preferred resolutions, and archival formats that optimize the variety of downstream applications.

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Using the Integrated Digitized Biocollections (iDigBio) API, we have developed a workflow where people uploading media files to MorphoSource can search for and import metadata for specimens directly from iDigBio. Via a Rich Site Summary (RSS) feed from MorphoSource, Audubon Core data describing media files for a given scientific collection can be retrieved and integrated into institutional IPT and databases. Such data migration of large files requires attention to detail and the development of data workflows that ensure correct specimen mapping at all steps. The RSS feed from MorphoSource will also consolidate usage information for media files from specimens in each scientific collection for reporting. Additional goals of the project are to provide information vital to the creation of collection best practices for imaging permissions/copyright. A status report and update on best practices will be presented.

Keywords

vertebrate, imaging, workflow, 3D, scanning, best practices

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